WHAT IS CLAIMED IS:

1.   A tire comprising:

a tread;

at least one groove formed in said tread; and

a plurality of smaller grooves formed in the walls of said groove so as to extend in the longitudinal directions of said groove,

wherein said smaller grooves have a depth set within a range of 0.01 to 0.5 mm and a pitch set within a range of 0.01 to 0.5 mm.

2.   A tire according to Claim 1,

wherein the depth of said smaller grooves is set within a range of 0.05 to 0.4 mm, and the pitch of said smaller grooves is set within a range of 0.05 to 0.4 mm.

3.   A tire according to Claim 2,

wherein the sectional shape, as taken at a right angle with respect to the longitudinal directions, of said smaller grooves is made symmetric with respect to the widthwise center lines of said smaller grooves.

4.   A tire according to Claim 3,

wherein the sectional shape, as taken at a right angle with respect to the longitudinal directions, of said smaller grooves is an isosceles triangle.

5.   A tire according to Claim 1,

wherein a relation of P ≤ 2D is satisfied if the depth

of said smaller grooves is designated by D and if the pitch P of said smaller grooves is designated by P.

6.   A tire according to Claim 1,

        wherein said smaller grooves are formed in the groove walls continuing in the circumferential directions.

7.   A tire according to Claim 1,

        wherein said smaller grooves are juxtaposed in parallel and have undulating groove wall surfaces.

8.   A tire according to Claim 1,

        wherein the vicinity of the bottom of said groove is free of said smaller grooves.

9.   A tire according to Claim 1,

        wherein the walls in the vicinity of the confluence of said groove and said groove are provided with turbulence generating zones for generating minute turbulences in a fluid flowing in the vicinity of the groove walls thereby to suppress separation of the fluid flowing in said groove.

10.   A tire according to Claim 1,

        wherein the walls in the vicinity of the opening of said groove on the tread surface side are provided with turbulence generating zones for generating minute turbulences in a fluid flowing in the vicinity of the groove walls thereby to suppress separation of the fluid flowing in said groove.

11.   A tire according to Claim 9,

        wherein said turbulence generating zones have a

multiplicity of pointed projections having a diameter within a range of 0.01 to 0.5 mm and a height within a range of 0.01 to 0.5 mm.

12.   A tire according to Claim 9,

    wherein said turbulence generating zones have a multiplicity of recesses having a diameter within a range of 0.01 to 0.5 mm and a depth within a range of 0.01 to 0.5 mm.

13.   A tire according to Claim 1,

    wherein the pitch of said smaller grooves is set larger on the bottom side of said groove than on the side of the tread surface.

14.   A tire according to Claim 1,

    wherein the depth of said smaller grooves is set larger on the bottom side of said groove than on the side of the tread surface.

15.   A tire according to Claim 1,

    wherein when the groove wall faces of a larger size and the groove wall faces of a smaller size in the groove longitudinal directions are compared, said smaller grooves have the larger depth and/or the larger pitch in the groove walls of the shorter size than in the groove walls of the longer size.

16.   A tire according to Claim 1, comprising: a first land portion; a second land portion defined by a plurality of grooves and adjoining said first land portion across a first groove;

~~and a third land portion defined by a plurality grooves and~~ adjoining said first land across said first groove, said third land portion having a wall face which faces the first groove and has a smaller size in the groove longitudinal directions than a wall face of the second land portion which faces the first groove,

wherein in the wall face of said first land portion which faces the first groove, the depth and/or the pitch of said smaller grooves is larger in the portions confronting said third land portion than in the portions confronting said second land portion.

17.   A tire according to Claim 1,

wherein the tread is provided with: a plurality of grooves extending along the tire circumferential directions; and a plurality of grooves extending along the tire widthwise directions, and

wherein the walls of the grooves extending along the tire circumferential directions are free of said smaller grooves in a portion thereof intersecting prolongations of the grooves extending along the tire widthwise directions, as connected with the grooves extending along said tire ~~circumferential directions~~

18.   A tire according to Claim 1,

wherein said smaller grooves are undulated to have an amplitude with respect to a reference line parallel to the

surface of said tread, and

wherein said smaller grooves have a period set within a range of 2 to 60 mm and an amplitude set within a range of 0.1 to 3 mm.

~~19.   A tire according to Claim 1,~~

wherein said smaller grooves formed in the walls of the groove extending along the tire circumferential directions are provided in plurality at a spacing in the tire circumferential directions and are so inclined with respect to said tread surface that the distance from said tread surface is increased the more in the tire rotating direction in the vicinity of the grounding surface of the tire, and are made parallel to the road surface at least at their end portions on the tire advancing side in the region of the grounding surface on the tire advancing side and within a range of no more than 5 mm from the road surface.

20.   A tire according to Claim 1,

wherein when a rib-shaped portion formed between said smaller grooves is viewed in a section normal to the longitudinal directions of said smaller grooves, relations of $L2 \geq 0.6 \ L1$ are set: if the intersection between a prolongation of the wall face of one smaller groove on the bottom side thereof and a prolongation of the wall face of the other smaller groove on the bottom side thereof is designated by point A; if the intersection between the wall face of said rib-shaped portion

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of the one smaller groove on the crest side thereof and the
wall face of the rib-shaped portion of the other smaller groove
on the crest side thereof is designated by point B; if the
distance from a virtual line joining the bottom of the one
smaller groove and the bottom of the other smaller groove to
said point A is designated by L1; and if the distance from said
virtual line to said point B is designated by L2.

21.   A tire according to Claim 1,

wherein if the wall of said smaller groove on the tread
surface side is designated by a first groove wall and if the
angle of inclination of said first groove wall with respect
to a line normal to the wall of the groove where said smaller
groove is formed is designated by $\theta 1$, said inclination angle
$\theta 1$ is set larger on said first groove wall of the smaller groove
formed on the bottom side of said groove than on said first
wall of the smaller groove formed on the tread surface side.

22.   A tire according to Claim 21,

wherein if the wall of said smaller groove on the bottom
side of said groove is designated by a second groove wall and
if an angle, as contained between said first groove wall and
said second wall is designated by $\theta 2$, said angle $\theta 2$ is set larger
of said smaller groove formed in the bottom side of said groove
than of the smaller groove formed in the tread surface side.

23.   A tire according to Claim 1,

wherein the bottom of said smaller groove is shaped to

~~have a generally arcuate shape, when viewed in a section normal~~

to the longitudinal directions of ~~said~~ smaller groove, and the

rib-shaped portion ~~between~~ the smaller grooves is shaped to

~~have an acute angle less than 90 degrees at its crest.~~

24. A tire according to Claim 1,

wherein said smaller grooves are absent in the vicinity

of the tread surface.